

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE REGENTS OF THE UNIVERSITY OF CALIFORNIA,
ON BEHALF OF THE DAVIS CAMPUS AND
THE SEED BIOTECHNOLOGY CENTER (SBC) OF THE UNIVERSITY OF
CALIFORNIA, DAVIS IN THE USA
AND IN CHILE
THE ASOCIACIÓN NACIONAL DE PRODUCTORES DE SEMILLAS (ANPROS),
THE INSTITUTO DE INVESTIGACIONES AGROPECUARIAS (INIA), THE
UNIVERSIDAD DE CHILE, THE UNIVERSIDAD CATÓLICA DE CHILE, the P.
UNIVERSIDAD CATÓLICA DE VALPARAÍSO , THE UNIVERSIDAD DE TALCA

Article I. Parties and Purpose

The Asociación Nacional de Productores de Semillas (ANPROS), the Instituto de Investigaciones Agropecuarias (INIA), the Universidad de Chile, the Universidad Católica de Chile, The Universidad Católica de Valparaíso, and the Universidad de Talca, all headquartered in Chile, and the Seed Biotechnology Center (SBC) at the University of California, Davis, in the USA, will jointly initiate and administer a research, development and capacity-building Program that would conserve and characterize critical genetic resources, develop new crop germplasm, release improved varieties in specific crops, and educate a new generation of plant breeders to enhance and sustain innovation in crop variety development in both Chile and California.

A key advantage of close collaboration between breeders in Chile and California would be the ability to take advantage of the counter-season locations to speed the advancement of generations for annual crops. Most major seed companies already maintain operations in both locations specifically for this purpose, but breeding programs have generally not established counter-season nurseries. Such collaborations would be mutually beneficial and would greatly speed variety development programs in both locations.

Article II. Areas of Cooperation and Collaboration

At least during its initial steps, this MOU will focus on the following areas of interest:

1. Conservation and characterization of plant genetic resources. The University of California has significant collections of tomato, grape, citrus, nut, stone fruit, lettuce, celery, strawberry and other germplasm, that can be utilized for variety development or genetic studies. In Chile, it is critical that existing genetic resources, including endemic

ones, be further collected, assessed and preserved. The characterization of germplasm will include genomic studies that need to be enhanced, particularly in Chile.

2. Develop novel crop germplasm. This will include the development of new cultivars with resistance to biotic and abiotic stresses, improvement of taste, nutrition, pharmaceutical properties or quality, extension of post-harvest quality, etc. For the development of these new cultivars, utilization of genomics and molecular marker techniques will be considered.
3. Release of improved varieties for the global market. Extensive trialing in a range of environments is generally required to assess the potential for commercial success of a new variety. Chile-California collaborations would speed up the trialing of promising varieties in diverse environments. New releases will be protected by Plant Breeders Rights, whether through the US Plant Patents, Plant Variety Protection or utility patents.
4. Education and Capacity-building. Since there is currently a global shortage of trained plant breeders, this agreement would address these by encouraging and supporting breeding programs in both Chile and California. UC Davis will provide specific graduate programs targeted toward plant genetics and breeding, including Masters and PhD programs and the SBC will contribute the Plant Breeding AcademySM, which offers specific training in genetics, statistics and breeding methods for persons currently working in the seed or nursery industries. Also, reciprocal opportunities will be offered to US students to study with collaborators and faculty in Chile.

Article III. Implementation of Collaborative/Cooperative Projects, Programs and Activities.

Specific details of any cooperative/collaborative activities to be conducted under this Agreement will be described and agreed upon in writing in the form of Proposals to be presented to funding agencies both in Chile and California as appropriate. These Proposals will include, at least, institutions from both the public and private sectors that will participate; the objectives of the partnership; activities to be conducted; responsibilities of cooperating parties; personnel who will participate; duration of the activities; implementation procedures; and, source, allocation and amount of financial resources. Also the proposals should include a detailed account on the way Intellectual Property Rights will be administered and its benefits distributed.

Article IV. Cooperation with Third Parties

Since other universities, institutes, centers, organizations and companies may have capabilities and conduct activities that will benefit and support this collaboration, the signing parties will identify these other cooperators for joint participation in mutually agreed projects and activities. The activities, responsibilities and other details of the participation of such third parties will be defined and agreed in writing by the signers of this MOU.

Article V. Management

This MOU will be managed by a Management Committee (MC) who will report annually to the Participants. It will be composed of one representative of the Chilean Parties and one from the SBC, each acting as co-chairs. The co-chairs may also mutually nominate other representatives if they deem it necessary. The MC will meet periodically, at times and places of its choice to review progress of the activities under this MOU, to periodically review the priority areas for cooperation, to recommend projects and establish framework(s) of cooperation for each selected area (including but not limited to key institutions, key persons, forms of cooperation and financing); to maintain close exchange of information between the Participants in the identified fields of cooperation; to assess whether the cooperation is bringing real benefits to the development of new business in both countries; and to coordinate administrative matters.

Each Participant will bear the costs of its participation in the activities under this MOU. The activities will be subject to the availability of funds, resources and personnel of each Participant, but one of the main tasks of the MC will be to raise funds to accomplish the task agreed on this MOU.

Article VI. Support and Resources

The amount and source of resources and other requirements for cooperative activities will be based in part on the Chile-California Partnership for the 21st Century, signed on June 12 by the President of Chile and the Governor of the State of California in the USA and other additional funds that could be raised to comply with the objectives of this MOU. All participants may jointly or individually seek funding and support from third parties to conduct collaborative projects, programs and/or activities. This Agreement does not obligate either the parties to provide funds and/or other resources from its own or other sources unless agreed in writing. Proposals for joint research contracts and grants shall be subject to the usual financial and administrative procedures of each country and require approval of the respective institutions.

Article VII. Resolution of Disputes

The parties are committed to the informal and expeditious resolution of any dispute that arises between them related to or arising from any aspect of this Agreement or either party's performance of this Agreement. If a dispute arises which the parties cannot resolve themselves, the matter shall be determined in the following way. Either party can request this process.

The parties shall form a dispute resolution panel consisting of three members. Each party shall choose one member and those two members shall mutually choose the third member in a manner that they determine. The panel shall determine its procedures. The guiding principal shall be an expeditious resolution of the dispute. There shall be no charge to any party for these services. The three members shall issue a written decision explaining the basis for their decision. The written decision shall be final and binding on the parties.

Article VIII. Language of Agreement

There will be six copies of this Agreement; three written in English and three in Spanish. The two versions are equally valid.

Article IX. Duration, Termination and Modification of the Agreement

This Agreement shall take effect when signed by the official representatives of the institutions involved and will remain in effect for an initial period of five (5) years and may be extended by mutual agreement in writing for additional five-year periods. This Agreement may be terminated by either party with six-months written notice of intent to terminate. In the event of termination, each party will assume financial and other responsibilities for the completion of required and agreed activities or as such responsibilities may be modified by mutual written agreement. Any modification shall require the written approval of the signers of this MOU.

This agreement constitutes the entire agreement between the parties. There are no understandings, agreements, or representations, oral or written, not specified herein regarding this agreement. No amendment, consent, or waiver of terms of this agreement shall bind either party unless in writing and signed by all parties. Any such amendment, consent, or waiver shall be effective only in the specific instance and for the specified purpose given. The parties to this agreement by the signatures below or their authorized representatives, acknowledge having read and understood the agreement and agree to be bound by its terms and conditions.

Article X. Contact Persons

Article XI. Signatures

**Instituto de Investigaciones
Agropecuarias**
Approved by:

**The Regents of the University of
California**
Approved by:

Leopoldo Sánchez Date

Director Nacional

Instituto de Investigaciones
Agropecuarias

Date

Larry N. Vanderhoef
Chancellor,
University of California, Davis

ANPROS

Approved by:

Victor Pinto Date
Presidente
ANPROS

Universidad de Chile

Approved by:

Victor Pérez Date
Rector
Universidad de Chile

Universidad Católica de Chile

Approved by:

Date
Rector
Universidad Católica de Chile

P. Universidad Católica de Valparaíso

Approved by:

Date
Rector
P. Universidad Católica de Valparaíso

Universidad de Talca

Approved by:

Date
Rector
Universidad de Talca

The College of Agricultural and Environmental Sciences

Approved by:

Date
Neal Van Alfen
Dean, College of Agricultural and Environmental Sciences
University of California, Davis

The Seed Biotechnology Center

Approved by:

Kent J. Bradford
Academic Director
Seed Biotechnology Center
University of California, Davis

Date

Michael L. Campbell
Executive Director
Seed Biotechnology Center
University of California, Davis

Date

June, 2008